

CLAIMS:

1. A mass produced absorbent article comprising an absorbent member adapted to retain liquid therein, at least one other component operatively connected to the absorbent member in a unit, and an image including at least one ink having the color of one of cyan, magenta, yellow and black, the image being printed in a non-contact manner on at least a portion of said one component by ink jets at a resolution of about 100 dpi with said component moving under the ink jets at a speed of at least about 30.5 mpm (100 fpm), wherein any area in the image having a cyan colored ink applied at maximum threshold thereto has a coverage area ratio of cyan colored ink of at least about 3%, any area in the image having a magenta colored ink applied at maximum threshold thereto has a coverage area ratio of magenta colored ink of at least about 5%, any area in the image having a yellow colored ink applied at maximum threshold thereto has a coverage area ratio of yellowed colored ink of at least about 6%, and any area in the image having a black colored ink applied at maximum threshold thereto has a coverage area ratio of black colored ink of at least about 6%.

2. An absorbent article as set forth in claim 1 wherein any area in the image having a cyan colored ink applied at maximum threshold thereto has a coverage area ratio of cyan colored ink of at least about 4%, any area in the image having a magenta colored ink applied at maximum threshold thereto has a coverage area ratio of magenta colored ink of at least about 7%, any area in the image having a yellow colored ink applied at maximum threshold thereto has a coverage area ratio of yellowed colored ink of at least about 9%, and any area in the image having a black colored ink applied at maximum threshold thereto has

a coverage area ratio of black colored ink of at least about 7%.

3. An absorbent article as set forth in claim 1 wherein any area in the image having cyan colored ink applied at maximum threshold thereto has a coverage area ratio of cyan colored ink of at least about 5%, any area in the image having a magenta colored ink applied at maximum threshold thereto has a coverage area ratio of magenta colored ink of at least about 8%, and any area in the image having a black colored ink applied at maximum threshold thereto has a coverage area ratio of black colored ink of at least about 8%.

4. An absorbent article as set forth in claim 1 further comprising a background on which the image is printed.

5. An absorbent article as set forth in claim 4 where in the background is white.

6. An absorbent article as set forth in claim 5 wherein said component comprises an outer cover, the background being defined by the color of the outer cover.

7. An absorbent article as set forth in claim 5 wherein the white background comprises a layer of white ink applied to at least a portion of the outer cover.

8. An absorbent article as set forth in claim 1 wherein the image includes at least one separable design element having a periphery and an interior, the interior being free of shading of black ink.

9. An absorbent article as set forth in claim 8 wherein said at least one design element is outlined in black ink.

10. An absorbent article as set forth in claim 9 wherein the black ink is applied at the highest threshold for a selected resolution.

11. An absorbent article as set forth in claim 8 wherein the image includes multiple separable design elements, none of the design elements being smaller than about 0.64 centimeters (0.25 inches) in height.

12. An absorbent article as set forth in claim 11 wherein one of the design elements constitutes a focal design element, the height of the focal design element being at least about 1.91 centimeters (0.75 inches).

13. An absorbent article as set forth in claim 1 wherein the inks are wax-based.

14. An absorbent article as set forth in claim 1 wherein the outer cover is made of an extensible material.

15. An absorbent article as set forth in claim 1 wherein the absorbent article is one of: a diaper, a training pant and an adult incontinence garment.

16. An absorbent article as set forth in claim 1 wherein a color difference (DE\*) value for any cyan colored ink in the image as compared to a background color of said component on which the image is printed is at least about 6, the DE\* value for any magenta colored ink in the image has a color difference (DE\*) of at least about 9, the DE\*

value for any yellow colored ink in the image has a color difference (DE\*) of at least about 8, and the DE\* value of any black colored ink in the image has a color difference (DE\*) of at least about 6.

17. An absorbent article as set forth in claim 1 further comprising an overlay covering the image.

18. An absorbent article as set forth in claim 17 wherein the overlay comprises a clear, non-pigmented ink applied over the top of the image.

19. A mass produced compliant laminate comprising multiple layers operatively connected together in a laminate unit, and an image including at least one ink having the color of one of cyan, magenta, yellow and black, the image being printed in a non-contact manner on at least a portion of one of the layers by ink jets at a resolution of about 100 dpi with said one layer moving under the ink jets at a speed of at least about 30.5 mpm (100 fpm), wherein any area of the image having a cyan colored ink applied at maximum threshold thereto has a coverage area ratio of cyan colored ink of at least about 3%, any area having a magenta colored ink applied at maximum threshold thereto has a coverage area ratio of magenta colored ink of at least about 5%, any area of the image having a yellow colored ink applied at maximum threshold thereto has a coverage area ratio of yellowed colored ink of at least about 6%, and any area of the image having a black colored ink applied at maximum threshold thereto has a coverage area ratio of black colored ink of at least about 6%.

20. A mass produced absorbent article comprising an absorbent member adapted to retain liquid therein, at least

one other component operatively connected to the absorbent member in a unit, and an image including at least one process color ink, the image being printed in a non-contact manner on at least a portion of said one component by ink jets, the image including at least one separable design element being outlined in one selected color and being free of said selected color as shading in an interior of the design element, the design element having a height of no less than about 0.64 centimeters (0.25 inch).

21. An absorbent article as set forth in claim 20 wherein said selected ink is applied by the ink jets at the highest threshold for a selected resolution.

22. An absorbent article as set forth in claim 20 wherein said at least one design element constitutes a focal design element, the height of the focal design element being at least about 1.91 centimeters (0.75 inches).

23. An absorbent article as set forth in claim 20 further comprising a background on which the image is printed.

24. An absorbent article as set forth in claim 23 wherein the background is white.

25. An absorbent article as set forth in claim 23 wherein said one component comprises an outer cover, the white background being defined by the color of the outer cover.

26. An absorbent article as set forth in claim 24 wherein the white background comprises a layer of white ink applied to at least a portion of said one component.

27. An absorbent article as set forth in claim 20 wherein the inks are wax-based.

28. An absorbent article as set forth in claim 20 wherein the outer cover is made of an extensible material.

29. An absorbent article as set forth in claim 20 wherein the absorbent article is one of: a diaper, a training pant and an adult incontinence garment.

30. An absorbent article as set forth in claim 20 wherein said selected color is black.

31. An absorbent article as set forth in claim 20 further comprising an overlay covering the image.

32. An absorbent article as set forth in claim 31 wherein the overlay comprises a clear, non-pigmented ink applied over the top of the image.

33. A mass produced absorbent article comprising an absorbent member adapted to retain liquid therein, at least one other component operatively connected to the absorbent member in a unit, and an image including at least one ink having the color of one of cyan, magenta, yellow and black, the image being printed in a non-contact manner on at least a portion of said component by ink jets at a resolution of about 100 dpi with the outer cover moving under the ink jets at a speed of at least about 30.5 mpm (100 fpm), wherein a color difference (DE\*) value for any cyan colored

ink in the image as compared to a background color of said component on which the image is printed is at least about 6, the DE\* value for any magenta colored ink in the image has a color difference (DE\*) of at least about 9, the DE\* value for any yellow colored ink in the image has a color difference (DE\*) of at least about 8, and the DE\* value for any black colored ink in the image has a color difference (DE\*) of at least about 6.